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Attorney's Docket 7163-32

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Schaldach, et al.	Examiner:	Unknown
Ser. No.:	09/996,061	Art Group:	Unknown
Title:	STENT INCLUDING HUMAN OR ANIMAL TISSUE		
Filed:	27 November 2001	Date:	4 March 2002

PRELIMINARY AMENDMENT

This Preliminary Amendment is filed with the missing parts in the above case, which is based on German application 100 60 443.9, which was filed on 29 November 2000. The fees for the claims should be calculated based on the claims remaining after the entry of this Preliminary Amendment, which results in 52 total and 2 independent claims. Consistent with the modifications to 37 CFR §1.125, the applicant has provided a substitute specification instead of a clean copy of the paragraphs and claims as they stand after amendment.

Amendments to the Disclosure

The specification as filed has been altered from the literal translation document received to delete information above the title, to insert headings according to US practice, and to insert paragraph numbering in lieu of line numbering. These changes do not introduce new matter.

In addition, please make the following change to the specification:

Amendments to the Claims

After the heading "CLAIMS" and before the beginning of the claims, please insert the words: -- What is claimed is: --

Please amend the claims as follows:

1. (amended) A stent, in particular a coronary stent, for a vessel of a human or animal body, comprising:

a tubular body [(2; 2'; 2")] for expansion from a first condition into a second condition in which it holds the [a] vessel [(18) of the human or animal body] in an expanded

state, wherein [characterized in that] the tubular body [(2; 2'; 2")] includes at least a first wall portion [(4; 4'; 4")] comprising a human or animal tissue of adequate elasticity.

2. (amended) The [A] stent of claim 1, wherein [as set forth in claim 1 characterized in that] the first wall portion has [(4) is of] a stiffness which is adequate to hold the vessel in the expanded state in the second condition.

3. (amended) The [A] stent of claim 1, wherein [as set forth in claim 1 or claim 2 characterized in that] the first wall portion [(4; 4')] comprises cartilage tissue.

4. (amended) The [A] stent of claim 1, wherein [as set forth in one of the preceding claims characterized in that] the first wall portion [(4")] comprises a tissue which is genetically modified to increase compatibility and/or stiffness.

5. (amended) The [A] stent of claim 1, wherein [as set forth in one of the preceding claims characterized in that] the first wall portion [(4'; 4")] comprises a hardenable tissue.

6. (amended) The [A] stent of claim 5, wherein [as set forth in claim 5 characterized in that at least in a portion-wise manner] the first wall portion is provided in at least a portion wise manner with at least a first layer [(13)] which includes at least a first component of a hardening agent or at least in a portion-wise manner contains at least a first component of a hardening agent.

7. (amended) The [A] stent of claim 5, further comprising : [as set forth in claim 5 or claim 6 characterized in that there is provided] a second wall portion [(9)] arranged in the first wall portion [(4')] at least in the second condition of the stent, wherein the first layer [(13)] is arranged on the surface [(12)] which is towards the second wall portion [(9)] and the second wall portion [(9)], on its surface [(15)] towards the first wall portion [(4')], is provided at least in a portion-wise manner with at least a second layer [(16)] which includes at least a second component of the hardening agent.

8. (amended) The [A] stent of claim 5, wherein [as set forth in one of claims 5 through 7 characterized in that] at least the first component of the hardening agent is enclosed in microcapsules [(14, 17)] which burst open under the effect of pressure.

9. (amended) The [A] stent of claim 1, wherein [as set forth in one of the preceding claims characterized in that to produce an adhesive join to an element (18) adjoining it in the second condition] the first wall portion [(4")] is provided at least in a portion-wise manner with at least a third layer which includes at least a first component of an adhesive or contains at least in a portion-wise manner at least a first component of an adhesive, to produce an adhesive join to an element adjoining the first wall portion in the second condition.

10. (amended) The [A] stent of claim 9, wherein [as set forth in claim 9 characterized in that there is provided] a second wall portion is provided which is arranged in the first wall portion at least in the second condition of the stent, wherein the third layer is arranged on the surface towards the second wall portion and the second wall portion is provided on its surface towards the first wall portion, at least in a portion-wise manner, with at least a fourth layer which includes at least a second component of the adhesive.

11. (amended) The [A] stent of claim 9, wherein [as set forth in claim 9 or claim 10 characterized in that] at least the first component of the adhesive is enclosed in microcapsules which burst open under the effect of pressure.

12. (amended) The [A] stent of claim 1, wherein [as set forth in one of the preceding claims characterized in that] the first wall portion is formed by a flat element [(4")] which is rolled up in the manner of sheet at least in the first condition.

13. (amended) The [A] stent of claim 12, wherein [as set forth in claim 12 characterized in that the length of] the flat element has a length [(4")] in a [the] peripheral direction of the stent that corresponds substantially at least to a [the] periphery of the first wall portion in the second condition.

14. (amended) A catheter for implanting a stent [(1"'), in particular a stent (1"')] as set forth in claim 1 [one of claims 1 through 13], comprising :

a distal end region ; [, in the region of which are arranged]

a holding device [(24)] for holding the stent , arranged near the distal end region; [(1"')] and

a sheathing device , also near the distal end region, [(25)] which is movable relative to the holding device [(24)] in a [the] longitudinal direction of the catheter for receiving the stent [(1''')] when moving it to an [the] implantation location, characterized in that [provided at the sheathing device (25) is] at least one application device is provided at the sheathing device [(27)] for applying a medium which is capable of flow to a surface of the stent [(1''') a medium which is capable of flow].

15. (amended) The [A] catheter of claim 14, wherein the application device further comprises [as set forth in claim 14 characterized in that the application device (27) has] at least one application opening [(29)] in the sheathing device (25), which opening is connected to a feed passage [(28)] for the medium which is capable of flow [, in particular a component of a hardening agent or adhesive].

16. (amended) A catheter for implanting a stent [, in particular a stent] as set forth in claim 1 [one of claims 1 through 13], comprising :

a distal end region ; [, in the region of which are arranged]

a holding device for holding the stent , arranged near the distal end region; and

a sheathing device , also near the distal end region, which is movable relative to the holding device in a [the] longitudinal direction of the catheter for receiving the stent when moving it to an [the] implantation location, characterized in that the sheathing device receives the [is adapted to receive a] stent which has a layer of adhesive coated on its surface towards the sheathing device ,which has an anti-adhesion coating on its surface toward the coated stent surface [is provided with a layer of an adhesive, wherein on its surface towards the coated surface of the stent the sheathing device is provided with an anti-adhesion coating].

17. (amended) The [A] catheter of claim 14, wherein the holding device further comprises [as set forth in one of claims 14 through 16 characterized in that the holding device includes] a balloon [(24)] for expansion of the stent into a second condition in which it holds a vessel in a [the] human or animal body in an expanded state.

18. (amended) The [A] catheter of claim 17, further comprising: [as set forth in one of claims 14 through 17 having] a stent as set forth in claim 1 [one of claims 1 through 13].

19. (amended) A process for producing a stent, in particular a coronary stent, comprising a tubular body for expansion from a first condition into a second condition in which it holds a vessel in the human or animal body in the expanded state, characterized in that at least a first wall portion [(4; 4'; 4")] of the tubular body is produced from human or animal tissue cells.

20. (amended) The [A] process of claim 19, wherein [as set forth in claim 19 characterized in that to produce the first wall portion (4; 4'; 4")] the tissue cells are cultivated in a shaping mold corresponding to the configuration of the first wall portion or on a corresponding carrier to produce the first wall portion.

Please add the following new claims:

21. (new) The stent of claim 2, wherein the first wall portion comprises cartilage tissue.

22. (new) The stent of claim 2, wherein the first wall portion comprises a tissue which is genetically modified to increase compatibility and/or stiffness.

23. (new) The stent of claim 3, wherein the first wall portion comprises a tissue which is genetically modified to increase compatibility and/or stiffness.

24. (new) The stent of claim 21, wherein the first wall portion comprises a tissue which is genetically modified to increase compatibility and/or stiffness.

25. (new) The stent of claim 2, wherein the first wall portion comprises a hardenable tissue.

26. (new) The stent of claim 23, wherein the first wall portion comprises a hardenable tissue.

27. (new) The stent of claim 4, wherein the first wall portion comprises a hardenable tissue.

28. (new) The stent of claim 24, wherein the first wall portion comprises a hardenable tissue.

29. (new) The stent of claim 22, wherein the first wall portion comprises a hardenable tissue.

30. (new) The stent of claim 25, wherein the first wall portion is provided in at least a portion wise manner with at least a first layer which includes at least a first component of a hardening agent or at least in a portion-wise manner contains at least a first component of a hardening agent.

31. (new) The stent of claim 26, wherein the first wall portion is provided in at least a portion wise manner with at least a first layer which includes at least a first component of a hardening agent or at least in a portion-wise manner contains at least a first component of a hardening agent.

32. (new) The stent of claim 27, wherein the first wall portion is provided in at least a portion wise manner with at least a first layer which includes at least a first component of a hardening agent or at least in a portion-wise manner contains at least a first component of a hardening agent.

33. (new) The stent of claim 28, wherein the first wall portion is provided in at least a portion wise manner with at least a first layer which includes at least a first component of a hardening agent or at least in a portion-wise manner contains at least a first component of a hardening agent.

34. (new) The stent of claim 29, wherein the first wall portion is provided in at least a portion wise manner with at least a first layer which includes at least a first component of a hardening agent or at least in a portion-wise manner contains at least a first component of a hardening agent.

35. (new) The stent of claim 6, further comprising:

a second wall portion arranged in the first wall portion at least in the second condition of the stent, wherein the first layer is arranged on the surface which is towards the second wall portion and the second wall portion, on its surface towards the first wall portion, is

provided at least in a portion-wise manner with at least a second layer which includes at least a second component of the hardening agent.

36. (new) The stent of claim 30, further comprising:

a second wall portion arranged in the first wall portion at least in the second condition of the stent, wherein the first layer is arranged on the surface which is towards the second wall portion and the second wall portion, on its surface towards the first wall portion, is provided at least in a portion-wise manner with at least a second layer which includes at least a second component of the hardening agent.

37. (new) The stent of claim 31, further comprising:

a second wall portion arranged in the first wall portion at least in the second condition of the stent, wherein the first layer is arranged on the surface which is towards the second wall portion and the second wall portion, on its surface towards the first wall portion, is provided at least in a portion-wise manner with at least a second layer which includes at least a second component of the hardening agent.

38. (new) The stent of claim 32, further comprising:

a second wall portion arranged in the first wall portion at least in the second condition of the stent, wherein the first layer is arranged on the surface which is towards the second wall portion and the second wall portion, on its surface towards the first wall portion, is provided at least in a portion-wise manner with at least a second layer which includes at least a second component of the hardening agent.

39. (new) The stent of claim 33, further comprising:

a second wall portion arranged in the first wall portion at least in the second condition of the stent, wherein the first layer is arranged on the surface which is towards the second wall portion and the second wall portion, on its surface towards the first wall portion, is provided at least in a portion-wise manner with at least a second layer which includes at least a second component of the hardening agent.

40. (new) The stent of claim 34, further comprising:

a second wall portion arranged in the first wall portion at least in the second condition of the stent, wherein the first layer is arranged on the surface which is towards the second

wall portion and the second wall portion, on its surface towards the first wall portion, is provided at least in a portion-wise manner with at least a second layer which includes at least a second component of the hardening agent.

41. (new) The stent of claim 6, wherein at least the first component of the hardening agent is enclosed in microcapsules which burst open under the effect of pressure.

42. (new) The stent of claim 7, wherein at least the first component of the hardening agent is enclosed in microcapsules which burst open under the effect of pressure.

43. (new) The stent of claim 39, wherein at least the first component of the hardening agent is enclosed in microcapsules which burst open under the effect of pressure.

44. (new) The stent of claim 43, wherein the first wall portion is provided at least in a portion-wise manner with at least a third layer which includes at least a first component of an adhesive or contains at least in a portion-wise manner at least a first component of an adhesive, to produce an adhesive join to an element adjoining the first wall portion in the second condition.

45. (new) The stent of claim 9, wherein a second wall portion is provided which is arranged in the first wall portion at least in the second condition of the stent, wherein the third layer is arranged on the surface towards the second wall portion and the second wall portion is provided on its surface towards the first wall portion, at least in a portion-wise manner, with at least a fourth layer which includes at least a second component of the adhesive.

46. (new) The stent of claim 10, wherein at least the first component of the adhesive is enclosed in microcapsules which burst open under the effect of pressure.

47. (new) The stent of claim 44, wherein at least the first component of the adhesive is enclosed in microcapsules which burst open under the effect of pressure.

48. (new) The stent of claim 45, wherein at least the first component of the adhesive is enclosed in microcapsules which burst open under the effect of pressure.

49. (new) The stent of claim 48, wherein the first wall portion is formed by a flat element which is rolled up in the manner of sheet at least in the first condition.

50. (new) The stent of claim 49, wherein the flat element has a length in a peripheral direction of the stent that corresponds substantially at least to a periphery of the first wall portion in the second condition.

51. (new) The catheter of claim 16, wherein the holding device further comprises a balloon for expansion of the stent into a second condition in which it holds a vessel in a human or animal body in an expanded state.

52. (new) The catheter of claim 15, wherein the holding device further comprises a balloon for expansion of the stent into a second condition in which it holds a vessel in a human or animal body in an expanded state.

REMARKS

In the claims, multiple dependencies have been removed by distributing the limitations.

The above claims have also been amended to correspond them more closely to United States claiming practice, namely, by removing reference numerals, and by clarifying antecedent basis issues. In this manner, they should be in condition for allowance. These amendments to the claims are fully supported by the literal translation into English of the specification as filed in Germany, and they do not introduce new subject matter.

The claims as amended are incorporated into the substitute specification.

Respectfully submitted,

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REPLACEMENT PARAGRAPHS

CLAIMS AS AMENDED